

# STATEMENT OF BASIS Page 1 of 5

**BAQ Engineering Services Division** 

Company Name:Fujifilm Manufacturing U.S.A., Inc.Permit Writer:Jo Anna CunninghamPermit Number:1240-0046-CQDate:DRAFT

DATE APPLICATION RECEIVED: September 15, 2016

### **FACILITY DESCRIPTION**

Fujifilm Manufacturing USA, Inc. (Fujifilm) owns and operates a photographic supplies and equipment manufacturing facility in Greenwood, SC.

## **PROJECT DESCRIPTION**

The facility is requesting to produce Plastic Web with Clear Overlay Material. This is a new product which will be produced on the existing permitted production line, F-Plant Unit ID 15- Ink Jet Coating/Drying.

This facility is requesting a synthetic minor construction project to establish a Federally Enforceable production limit of 20,000,000 square meters per year (m²/year) (maximum) of Plastic Web with Clear Overlay Material. This request is being made even though the project itself is not major and the facility will not become a major facility after. The need for the production limit was discussed with the facility and they still want to include the limit in the permit even though the PTE shows they would not trigger a major source.

Existing Unit ID 15 currently produces Ink Jet Paper. With this construction project the production line will have the option of producing Ink Jet Paper (7,381 hours/year) with the remaining balance (1,379 hours/year; 20,000,000 m²/year) of Plastic Web with Clear Overlay Material.

### **COLLOCATION DETERMINATION**

The Fujifilm P-Plant, K-Plant, F-Plant, L-Plant, G-Plant, M-Plant, N-Plant, and Distribution Center (DC) are collocated with one another for Title V and Title III applicability. The entire site is covered under one permit (TV-1240-0046).

### **SOURCE TEST REQUIREMENTS**

N/A

## SPECIAL CONDITIONS, MONITORING, LIMITS N/A

**UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)** Equipmen lb/hr **Pollutant TPY Method for Estimating Emissions** t ID VOC 25.3 110.8 **Engineering Estimates** Dietheylene Unit ID Glycol Butyl 6.789 **Engineering Estimates** 1.55 15/IJP-C/D Ether Triethylamine 2.96 1.296 **Engineering Estimates** 



# STATEMENT OF BASIS Page 2 of 5

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### **SAMPLE CALCULATION - PROJECT EMISSIONS**

- Maximum Short term VOC rate = Line Speed (m/min) x Coated width (m) x Coating Weight (g/m2) x (1 lb/453 grams) x 60 min/hr x percent VOC (or percent HAP).
- Maximum Short term VOC rate = 170 m/min x 1.42 m x 10.5 g/m2 x 1 lb/453 grams x 60 min/hr x 7.53% = 25.29 lb/hr
- Maximum Annual VOC Emissions at 8760 hours = 25.29 x 4.38 = 110.8 tons VOC
- Maximum Annual Emissions, Unit ID 15, with federally enforceable production limit, 20,000,000 m2/year (1,379 hours/year) = 25.29 lb/hr x 1,379 hr/year x 1 ton/2,000 lb = 17.43 tpy

CONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)				
Equipmen t ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
	VOC	25.3	*40.2	Engineering Estimates
Unit ID 15/IJP-C/D	Dietheylene Glycol Butyl Ether	1.55	N/A	Engineering Estimates
	Triethylamine	2.96	N/A	Engineering Estimates

<sup>\*</sup>Controlled emission take into account federally enforceable production limit of 20,000,000 m2/year of Clear Overlay material, produced on Unit ID 15 lnk Jet Paper – Coating and Drying.

- Production of Clear Overlay material with the federally enforceable production limit of 20,000,000 m<sup>2</sup>/year;
- Operating Hours to produce Clear Overlay Material: 20,000,000 m²/year/ 170 m/min/ 1.49m/60 min/hr = 1,379 hr/year for Clear Overlay production on Unit ID 15.
- 25.29 lb/hr VOC x 1,379 hr/year x 1/ 2000 lb = 17.43 tpy (VOC resulting from Clear Overlay production, with the federally enforceable production limit of 20,0000,000 m2/year)
- The remaining balance of the (8,760 hours/year) will consist of Ink Jet Paper production on Unit ID 15 (i.e. 7,381 hr/year for Ink Jet Pater production)
- 6.17 lb/hr VOC/hr x 7,381 hr/year x 1/2000 lb = 22.77 tpy (VOC resulting from lnk Jet Paper production)
- Potential to Emit of VOC on Unit ID 15: Total Annual VOC Emissions Unit ID 15 = Ink Jet Paper + Clear Overlay = 22.78 tpy + 17.43 tpy = 40.22 tons (total).



# STATEMENT OF BASIS Page 3 of 5

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### **EMISSIONS**

Site Wide VOC emissions without production limit: 157.73 tpy (current site wide) + 110.8 tpy (clear overlay) – 27.2 tpy (ink jet) = 241.3 tpy

Site Wide VOC emissions with production limit: 157.73 tpy (current site wide) + 40.2 tpy (clear overlay) – 27.2 tpy (ink jet) = 170.7

**Note:** The facility is a minor source for PSD before this construction project and will remain a minor source for PSD after this project. The production limit has been requested by the facility. There is no regulatory basis for the limit.

*SITE WIDE EMISSIONS AFTER PROJECT			
Pollutant	<b>Uncontrolled Emissions</b>	Controlled/Limited Emissions	
Pollutant	TPY	TPY	
VOC	4,470	170.66	
PM	83.85	16.82	
PM <sub>10</sub>	83.61	16.58	
PM <sub>2.5</sub>	83.01	15.98	
SO <sub>2</sub>	1.48	N/A	
NO <sub>X</sub>	195.98	N/A	
СО	112.14	N/A	
Lead (Pb)	0.21	N/A	
Highest HAP (Methanol)	1054	24.9	
Total HAP	1105	35.7	

<sup>\*</sup>Site wide includes the following Fujifilm Plants: P-Plant, K-Plant, F-Plant, L-Plant, G-Plant, M-Plant, N-Plant, and Distribution Center (DC).

## **OPERATING PERMIT STATUS**

The facility has a Title V operating permit which was issued on August 22, 2014.



# STATEMENT OF BASIS Page 4 of 5

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## **REGULATORY APPLICABILITY REVIEW**

REGULATORY APPLICABILIT	
Regulation	Comments/Periodic Monitoring Requirements
Section II.E - Synthetic Minor	Applicable – This project is a synthetic minor construction permit to establish a production limit of 20,000,00 m²/year (maximum) of a Plastic Web with Clear Overlay Material. This product will be produced on existing Unit ID 15 – Ink Jet Paper – Coating & Drying.
	The facility is a minor source for PSD before this construction project and will remain a minor source for PSD after this project. The production limit has been requested by the facility. There is no regulatory basis for the limit.
Standard No. 1	Not Applicable – there are no fuel burning sources with this project.
Standard No. 3 (state only)	Not Applicable – there are no waste materials with this project.
Standard No. 4	Applicable – the Standard No. 4 opacity and particulate matter limit are applicable. The project does not emit PM, therefore there the PM limit is not specified in the permit at this time.
Standard No. 5	Not Applicable - None of the processes, which are regulated by the regulation, apply.
Standard No. 5.2	Not Applicable – there are no fuel burning sources with this project.
Standard No. 7	Not Applicable - This project is a synthetic minor permit to establish a production limit of 20,000,00 m <sup>2</sup> /year (maximum) of a Plastic Web with Clear Overlay Material. This product will be produced on existing Unit ID 15 – Ink Jet Paper – Coating & Drying. The Facility has requested a federally enforceable limit. Fujifilm Manufacturing operates under SIC Codes 3861 and 5093. These SIC Codes are not included on the list of 28 source categories. The emissions increase from this project are less than 250 tons.
61-62.6	Not Applicable – this process does not generate or emit any fugitive dust
40 CFR 60 and 61-62.60	Not Applicable – There are no applicable sources
40 CFR 61 and 61-62.61	Not Applicable - This facility does not emit the pollutants subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride).
40 CFR 63 and 61-62.63	This project, production of Plastic Web with Clear Overlay Material, will be subject to 40 CFR 63 Subpart JJJJ - National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating.
61-62.68	Not Applicable - This project does not use or store any chemicals which are subject to this regulation.
40 CFR 64	Not Applicable – the Plastic Web with Clear Overlay Material emits VOCs, (25.2 lb/hr) however there are no control devices for this project.



# STATEMENT OF BASIS Page 5 of 5

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### **AMBIENT AIR STANDARDS REVIEW**

Regulation	Comments/Periodic Monitoring Requirements
Standard No. 2	Not Applicable – this project does not emit any Standard No. 2 pollutants
Standard No. 7.c	Not Applicable – this project is not a PSD project.
Standard No. 8 (state only)	This project (production of Plastic Web with Clear Overlay Material) will be subject to 40 CFR 63 Subpart JJJJJ. Because the project is subject to a MACT, the air toxics emitted from this project are exempt from Standard No. 8 modeling.

### **PUBLIC NOTICE**

This construction permits will undergo a 30-day public notice period to establish synthetic minor limits in accordance with SC Regulation 61-62.1, Section II.N. The comment period was open from December 8, 2016 to January 6, 2017 and was placed on the BAQ website during that time period.

**Note:** There is no regulatory basis for this production limit. The facility is requesting the production limit to be federally enforceable therefore the project must go through public notice.

#### ADDITIONAL PUBLIC PARTICIPATION

### **SUMMARY AND CONCLUSIONS**

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.